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ABSTRACT

The study described in this paper examined the use of the writing process as an instructional strategy for enhancing Afro-American preservice teachers' writing and reflective competence for teaching effectively. The major methodological concern focused on the pedagogical process for encouraging preservice teachers to integrate their beliefs and attitudes with the knowledge and practice of effective teaching. The cluster sample for this study consisted of 36 preservice teachers (27 females, 9 males) drawn from 112 students enrolled in 3 introduction to teaching courses. A pretest/posttest, wherein students completed an essay question about a teaching concept, was employed. Results suggest that: (1) an increase solely in writing activities did not significantly increase Afro-American preservice teachers' reflective decision making cognitive processes for effective teaching; (2) increased opportunities to write about concepts in teaching did not significantly improve competence in writing; and (3) increased writing assignments on teaching concepts did not significantly affect preservice teachers' intellectual competence for learning to teach. The major implication of this study is that the curriculum for Afro-American preservice teachers should involve a low degree of ambiguity about the professional knowledge base. Seven recommendations are made on the basis that the research supports the idea that Free Writings and Focused Free Writings help to formalize and focus the cognitive structures of students. (LL)

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Relationship Among Afro-American Preservice Teachers' Competence in Writing, Critical Thinking, and Learning to Teach Effectively: Pedagogical Implications

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Introduction

This research focused on the processes of teaching in an Introduction to Education course designed for preservice teachers. One of the major goals of this course was to enable students to gain a general understanding of both the contextual factors and processes of the complex nature of teaching. The research on effective teaching suggested that preservice student teachers differ greatly in their levels of cognition, in their levels of motivation, and in levels of other factors associated with mastering the professional knowledge content of teaching (Sparks-Langer & Colton, 1991).

Part of the challenge to teacher educators has been both the diagnosis of individual differences as well as planning and implementing effective instruction which would accommodate the variations among prospective teachers' developmental and intellectual capabilities (Morine-Dershimer, 1989). This inquiry examined the nature of Afro-American preservice teachers' individual differences in understanding aspects of the contextual factors and processes of teaching.

Research in teacher-education has focused on issues related to effective teaching (Brophy & Good, 1985; Clark, 1988; Kagan, 1988; Morine-Deshimer, 1989; Ross, 1990). The major theme of this research tradition focused on attempts to characterize and evaluate those attributes of effective teaching for accommodating the diversity of contextual factors in real classroom settings. Most recently, research in effective teaching has focused on teachers' judgement and their reflective-decision making cognitive processes (Lanier & Little, 1986; Rupley, Wise & Logan, 1986; Schon, 1987; Ross, 1990; Sparks-Langer & Colton, 1991).

A major supposition advanced was that teachers are rational professionals who make judgements and carry out decisions in an uncertain complex classroom environments. A major function of the teachers' role requires immediate, rather than reflexive, responses to a multiplicity of emerging factors among the diversity represented in current classrooms. Such immediate responses preclude rational processes of information in making informal judgments or reflective-decisions (Shavelson & Stern, 1981; Clark, 1988). Consequently, it becomes imperative for teacher educators to understand the diverse contextual constructs and processes for enabling prospective teachers to develop critical and reflective competence in teaching.

Problem

This study examined the use of a the writing process as an instructional strategy for enhancing Afro-American

preservice teacher's writing and reflective competence for teaching effectively. The major methodological concern focused on the pedagogical processes for encouraging pre-service teachers to integrate their beliefs and attitudes with the knowledge and practice of effective teaching. The issue of gender difference in writing, reflective, and teaching competence was a related issue of consideration in this study.

Cognitive psychologists are increasingly coming to the conclusion that most reasoning is domain-specific, and most knowledge is context-bound (Rumelhart & Norman, 1981). What differentiates effective teachers then may not be just the higher levels of general cognitive abilities, but rather a greater accumulation of knowledge specific to the domain of teaching. The essential factor seems to be how teachers transform knowledge to accommodate the diversity in different classroom situations. On this basis, it was argued that opportunities to write about concepts in teaching would enable prospective teachers to acquire greater accumulation of knowledge specific to effective teaching.

Several questions were posed with respect to the relationship between writing and reflective competence in learning to teaching effectively. First, what type of instructional curriculum in an introductory education course would best meet the needs of Afro American preservice teachers? Second, how does the teacher of such a course

stimulate and focus the cognitive structures of Afro-American preservice teachers? Third, what effect does Free Writing and Focused Free Writing have on the development of the cognitive structures brought to the course by Afro-American preservice teachers?

Background

The general premise underlying this investigation was that language and thought are interrelated since the use of language assumes certain underlying cognitive processes (Bruner, 1966; Hillocks, 1986). Both of these processes are interdependent (Berthoff, 1978). Writing engages the individual with a task environment involving translation of information into written words (Flower & Hayes, 1981).

The use of language appears to be instrumental in the development of thinking precesses involved in learning to teach. First, writing facilitates and shapes the ability to think and communicate about concrete reality (Glatthorn, 1985). Second, written language, according to Glatthorn, (1985) enhances the use of analytical processes on language beyond the concrete context. In this view then, writing appears to facilitate the development of prospective teachers' unique linguistic and analytical capabilities for understanding the abstract complexities of teaching.

According to Nickerson (1984), writing sharpens fundamental cognitive processes such as comparing, ordering, classifying, inferring, and predicting. These processes are

assumed essential to the effective performance of the intellectually demanding tasks of teaching.

Learning to Teach. Teaching involves the integration of knowledge, values, and skills (Lortie, 1975; Schon, 1983, 1987; Shulmam, 1987; Sparks-Langer & Colton, 1991). An understanding of teaching requires preservice teachers to synthesize knowledge of teaching with their personal values systems, unique attitudes, and experiences (Jersild, 1952, 1955; Fuller and Brown, 1975; Clark, 1988; Ross, 1990). Knowledge, as Polanyi (1966) stated, is not self illuminating. Knowledge requires the individual's personal participation. For Polanyi (1966), this is actually a living process whereby one gradually comprehends the multidimensionality of the specific environment. Consequently, each prospective teacher must assume personal responsibility in the process of becoming an effective teacher.

The writing process would encourage preservice teachers to examine the dimensions of meaning in their pre-teaching experiences. Also writing sustains time for analysis and reflection through the processes of ordering, classifying, synthesizing, and clarifying experiences (Glatthorn, 1985). According to Polanyi (1969), it is precisely the nature of this orderliness in a person's experiences which enables meaningfulness to emerge and express itself in the person's behavior. The writing process supports this supposition of personal style pedagogy (Bizzell, 1986).

Teaching Competence and Cognition. Competence in information processing and level of cognitive complexity are interrelated and interdependent (Kagan and Kogan, 1970). In its very broad sense, cognitive complexity indicates something about how persons structure their knowledge of their environment (Bieri, 1966). Accordingly, Bieri (1966) argued that levels of personal cognitive complexity are inferred on the basis of the individual's verbal and non-verbal behavior.

From this verbal prospective writing appears to be a potent medium for enabling prospective teachers to develop degrees of cognitive complexities about teaching. It may be conjectured then that the nature of written responses as well as the magnitude of discriminations about teaching are approximations of level of critical thinking for teaching (Bieri 1966).

Teaching Behaviors. All teaching is essentially an intentional act directed at increasing the students' cognitive complexity or understanding of the subject (Clark, 1988). At one end of this spectrum, some preservice teachers' cognitive complexity of teaching may be severely limited. They may exhibit understanding of the concept or skill in very restricted aspects of teaching. These prospective teachers may fail to realize, for example, the complexities of teaching (Smith and Geoffrey, 1968; Appleton, 1983). At the other end of the spectrum of cognitive complexity, preservice teachers may demonstrate

creative mastery of the concepts and skills over many dimensions of a multitude of complex variables involved in teaching. Thus a high degree of cognitive complexity is evidenced by students' illumination of both the explicit and implied relationships that exist among the principles and generalizations of teaching.

Both a theoretical and an operational understanding of the relationships among concepts such as education, schooling, learning, community, classroom, students, parents, curriculum, legislation, accountability, rights, responsibilities, norms, cultures and others are necessary for effective teaching. The prospective teacher's ability to articulate both the general and specific principles germane to these concepts mirrors increased cognitive complexity of teaching.

Writing and Teaching Competence. The writing process then seems to be an appropriate medium for enhancing the quality and diversity of preservice teachers' cognitive complexity of teaching. According to Lewin (1951) cognitive complexity shows a developmental increase through the acquisition of an array of new concepts for differentiating ideas, rather than through the refined articulation of already existing educational concepts. Thus, enabling preservice teachers to acquire an array of new creative teaching concepts which are fundamentally critical for effective teaching in the divergent school contexts of our society is imperative.

From an additional perspective, writing holds the potential for encouraging reflective critical and creative analysis of teaching. Effective teaching precludes critical reflection on the constant stream of professional decisions that affects the probability of learning for students in multicultural and pluralistic classroom settings.

From both theoretical and experimental positions, writing appears to be related to the development of critical teaching competence in that it would allow preservice teachers to understand their thinking and work toward improvement (Barritt & Kroll, 1978; Glatthorn, 1985; Scardamalia & Bereiter, 1985; Kemp, 1990).

Assumptions

There were two major assumptions predicating this study. First, increasing writing activities would show an increase in Afro-American preservice teachers' reflective-decision making cognitive processes for effective teaching. Second, in view of the developmental nature of writing and teaching competence, increased writing assignments on teaching concepts should significantly affect perservice teachers' intellectual competence for learning to teach.

Statement of Objectives

The objectives of this research were: (1) to study the relationship between preservice teachers' structured and free writing competence, (2) to examine the relationship among preservice teachers' competence in writing, critical

thinking, and learning to teach, (3) to determine if relationships exist among concepts in teaching and teaching competence, and (4) to examine value of writing, as a diagnostic strategy, for enhancing, assessing, and monitoring preservice teachers' metacognitive processes during initial preservice education.

Definitions

1. Free Writing is a means for not only thinking through ideas but of enhancing creativity and increasing skill in writing. The writing is ordinarily not graded and topics are not prescribed (Hillocks, 1986, p. 176 & p. 211)
2. Focused Free Writing is a means for enhancing the process of thinking through ideas and increasing skills in writing in response to a prescribed topic or structured assignment. The writing is ordinarily not graded (Hillocks, 1986, p.177).

Methodology

Sample

The sample for this study consisted of 113 freshmen preservice teachers. These preservice teachers were enrolled in three freshmen level Introduction to Teaching courses. There were 26 males and 88 females. All of the students attended on a full time basis. The majority of the student in the afternoon sessions held fulltime employment and attended class after work. In contrast, many of the students in the morning sessions were employed on a part time basis.

The cluster sample for this study consisted of 36 preservice teachers drawn from 112 students enrolled in three Introduction to Teaching courses. Of the 36, there were 27 females and 9 males.

Design

Structured Essays. A pre-post test quasi experimental design was employed. Students completed a structured essay question about a teaching concept during the second week of the course. Student were permitted a total of twenty minutes to complete the essay. During the final week of the course, students wrote another essay on the same topic. Neither the pre nor post essays were discussed with students.

For both the pre and post essays, students were provided with a figure which shows the levels of contextual influences on students' and the teaching/learning process (Cole & Griffin, 1987). These contextual factors include:

(a) the task concept in teaching, (b) the learner, (c) the lesson, (d) the teacher and the classroom organization, (e) the principal and the school organization, and (f) the community organization, parents, school district, and other sociocultural institutions.

The Essay Item. The figure below shows some of the many factors which influence students' learning progress in school. First, study these factors outlined in this illustration, to determine how they may influence your understanding of teaching. Second, select a particular grade level at which you wish to teach. Third, imagine yourself as a teacher who is teaching thirty-five students. Finally, write an essay to explain how you would teach to insure that all your students progress satisfactorily to their potential. Your essay should include a title, a beginning, middle, and an end.

Unstructured-Focused Free Writing. Each of the three groups received different opportunities to focus-free write about the five major content themes of the course. These content themes include a) motives for becoming a teacher, b) students as learners, c) learning, d) subject matter and pedagogy, and e) issues related to teaching. Students were encouraged to reflect on these themes in view of the ecological setting of the school in society as these influence teacher behavior and student learning. Specific aspects of the ecological setting expanded from the lesson - student, teacher, classroom organization, school organi-

zation, school district, family, and other sociocultural institutions.

The goal of the unstructured free-writing sessions was to encourage preservice teachers to think critically about teaching. Each of the three instructors used common free-writing assignments with respect to the five themes for the course. These themes were (a) motives for becoming a teacher, (b) students as learners, (c) the learning process, (d) the context for teaching, and (e) the teaching process.

Procedures for Scoring the Essays. The holistic scoring procedure was employed to rate each essay on a scale of one to five for general characteristics of the writing which included sentence structure and command of the written code (Cooper, 1977; Meredith & Williams, 1984). Although holistic scoring is generally not as reliable as analytic scoring, it correlates well enough as an alternative (Bauer, 1981; Huot, 1990).

The essays were rated blindly, without students names, by the three researchers and three teachers who were not associated with the study. Inter-group rater reliability coefficient of .75 was established using the Kuder Richardson (KR21) formula.

Writing competence. Guidelines for rating each essay for writing competence included:

Score 1 - Weak or no organization and development;

Score 2 - Inadequate organization, slight evidence of central idea, little development;

Score 3 - Adequate organization, some forethought evident in the conception of a central idea;

Score 4 - Strong in either organization, development of a central idea; and

Score 5 - Strong organization, development with examples, and fresh conception of an idea or approach.

Procedure for Judging Teaching Competence. Perry's (1970) first three levels of intellectual development during the college years were used as guidelines of rating teaching competence. These included:

Level 1- Dualism - Students seem to characterize diversity in teaching as an either/or situation with limited understanding and participation.

Level 2- Multiplicity - Students come to recognize the complexities in teaching, but believe that their personal choices and preferences are equally valid.

Level 3- Contextual Relativism - Students begin to perceive knowledge and values as relative to different situations and to realize that behaviors and attitudes can be critically evaluated on the basis of current knowledge.

Procedure for Rating Critical Thinking. Blooms' (1956) Taxonomy of Educational Objectives: Cognitive Domain I was used to determine the level of teaching competence. These include:

Score 1 - Recall specific concepts and principles discussed in the course

Score 2 - Interpret specific concepts and principles discussed in the course

Score 3 - Application of concepts and principles discussed in the course

Score 4 - Analyze concepts and principles discussed in the course

Score 5 - Synthesize concepts and principles discussed in the course

Score 6 - Evaluate concepts and principles discussed in the course.

Analysis of the Data

Means, standard deviations, and pearson product-moment correlation coefficients (r) were determined for all 14 writing, critical thinking, and teaching variables. Correlation coefficients (r) express the degree of relationship that exists between two sets scores. A positive relationship was indicated when high scores on one variable were accompanied by high scores on the other; whereas low scores on one variable were associated with low scores on the other. A negative correlation coefficient indicated that a high score on one variable is associated with a low score on the other (Fraenkel & Wallen, 1990).

Results

The results are presented in the following order: (a) variations among the variables, (b) correlations among

writing, critical thinking, and teaching variables, and (c) correlations among critical thinking and teaching. Next, findings for gender and types of writings are presented.

Variations in writing competence. Means and standard deviations for writing, teaching, and critical thinking are found in Table 1. Except for the pre-essay (M=2.5 and

Table 1

Means and Standard Deviations for Writing and Teaching Competence

Variables	N	M	SD
Writing Competence			
Pre-Essay	89	2.5	.98
Post-Essay	86	1.3	.52
Free Writing: Time 1	42	1.5	.70
Free Writing: Time 2	42	1.6	.78
Free Writing: Time 3	42	1.7	1.00
Free Writing: Time 4	32	1.7	.89
Learning to Teach Competence			
Pre Teaching Competence	93	1.4	.59
Post Teaching Competence	94	1.5	.66
Teaching Competence: Time 1	42	1.3	.44
Teaching Competence: Time 2	42	1.6	.48
Teaching Competence: Time 3	36	1.6	.72
Teaching Competence: Time 4	32	1.6	.61

SD=.98), writing competence on the post-essay (M=1.3 and SD=.52), Writing 1 (M=1.5, and SD=.70), Writing 2 (M=1.6 and SD=.78), Writing 3 (M=1.7 and SD=1.00), Writing 4 (M=1.7 and SD=.89) indicated that most preservice teachers performed just below level 2 in writing. There was slight evidence of the development of a central idea, but inadequate organization, examples, and style with a pattern of grammatical and mechanical errors.

In contrast, however, the high SD scores suggest that many students had demonstrated at least a level 3 writing competence. At this level, students' writings revealed some forethought in the conception of the central idea, adequate organization, examples, and style with only some grammatical and mechanical errors. In contrast, there was an equal number who demonstrated weak organization, with a consistent pattern of mechanical and grammatical errors.

Variations in teaching competence. As indicated in Table 1, most students demonstrated an understanding of teaching below Perry's (1970) second stage of intellectual development, multiplicity. Students' teaching competence remained about the same on the pre teaching competence (M=1.4 and SD=.59) and the post teaching competence (M=1.5 and SD=.66). These scores suggested that students were beginning to recognize the complexities in teaching, but they believe that personal choices are equally valid.

Across different teaching concepts, at Time 1 (M=1.3 and SD=.44), Time 2 (M=1.6 and SD=.48), Time 3 (M=1.6 and

SD=.72), and Time 4 (M=1.6 and SD=.61) students seemed to conceptualize teaching as an either/or situation with limited personal understanding and participation. Except for Time 3 (SD=.72) there existed minor variations from this stance of teaching competence among these preservice teachers.

Structured and Free Writing Variables. Correlation coefficients are presented among the six writing variables (Table 2). All correlation across the pre-essay, post essay, Writing 1 (W1), Writing 2 (W2), Writing 3 (W3), and Writing 4 (W4) were less than .30. These low correlations indicate that a very weak relationship exists between pre and post

Table 2

Pearson Product-Moment Correlation Coefficients for Structured and Free Writing Competence

	N	PrE	PtE	W1	W2	W3	W4
Structured							
Pre-Essay (PrE)	89	1.00	-.13	.21	.25	-.07	.21
Post-Essay (PtE)	86	.05	1.00	-.05	-.04	.02	.21
Free Writing							
Writing 1 (W1)	42	.21	.05	1.00	.78**	.51*	.58**
Writing 2 (W2)	42	.25	-.04	.78	1.00	.57	.67**
Writing 3 (W3)	42	-.07	-.02	.51*	.57**	1.00	.57
Writing 4 (W4)	32	.21	.21	.58**	.57**	.52*	1.00

*p < .05. **p < .001.

writing competence. In addition, there is little association between structured and free writing competence. Pre-writing performance (r=-.13) showed a negative relationship with the post writing indicating that a high pre score was associated with a low post score.

In contrast, there was a greater relationship (r > .50) among all free writing variables. Statistically significant

correlations were revealed between (see Table 2) W1 and W2 (r =.78, p < .001); W1 and W3 (r =.51, p <.05); W1 and W4 (r =.58,p <.001); W2 and W4 (r=.67, p < .001); W4 and W3 (r=.52, p < .05). Consequently, greater predictability existed among free writing competence.

Teaching and Writing Competence. There was a low degree of relationship among pre/post teaching competence and the twelve writing competence variables (Table 3). Correlation

Table 3

Pearson Product-Moment Correlation Coefficients for Teaching and Writing Competence

	N	PrE	PtE	W1	W2	W3	W4
Pre Teach (PrTch)	93	.04	.17	-.07	.04	-.12	.19
Post Teach (PtTch)	94	.16	.09	.30	.29	.02	.23
Teaching 1 (Tch1)	42	.18	-.05	.67**	.53**	.17	.29
Teaching 2 (Tch2)	42	.26	.31	.78**	1.00	.58**	.67**
Teaching 3 (Tch3)	36	.10	.21	.53**	.70**	.80**	.63**
Teaching 4 (Tch4)	32	.23	.21	.54*	.55*	.41	.77**

*p < .05. **p < .001.

coefficients were no greater than .30 across these variables. Thus pre and post teaching competence did not

predict writing competence.

Teaching competence on single teaching concepts (Tch1, Tch2, Tch3, and Tch4) showed generally high relationships with free writing competence (W1, W2, W3, and W4) as indicated in Table 3. Statistically significant relationships were revealed between Tch1 and W1 ($r=.67$, $p<.001$); Tch1 and W2 ($r=.53$, $p<.001$); Tch2 and W1 ($r=.78$, $p<.001$); Tch and W3 ($r=.58$, $p<.001$); Tch2 and W4 ($r=.67$, $p<.001$); Tch3 and W1 ($r=.53$, $p<.001$); Tch3 and W2 ($r=.70$, $p<.001$); Tch3 and W3 ($r=.80$, $p<.001$); Tch3 and W4 ($r=.63$, $p<.001$); Tch4 and W1 ($r=.54$, $p<.05$); Tch4 and W2 ($r=.55$, $p<.05$); Tch4 and W4 ($r=.77$, $p<.001$).

This pattern of a high relationship between teaching and writing competence on clearly focused single teaching concepts was generally consistent. Highly structured multiple teaching concepts (Pre and Post Essays) did not reveal a high relationship between teaching and writing competence.

Concepts in Teaching and Teaching Competence. Competence in teaching showed low degrees of relationships across six concepts in teaching (Table 4). Students were

Table 4

Product-Moment Correlation Coefficients among Teaching Concepts and Teaching Competence

Teaching Concepts	Teaching Competence by Teaching Concepts					
	A	B	C	D	E	F
Pre Teaching Concept A: Context Factors	1.00	.01	-.08	.03	.02	.19
Post Teaching Concept B: Context Factors	.01	1.00	.30	.59**	.15	.18
Teaching 1 Concept C: Teacher	-.08	.30	1.00	.33	.23	.15
Teaching 2 Concept D: Students	.03	.59**	.33	1.00	.48**	.39
Teaching 3 Concept E: Conditions	-.13	.02	.23	.48**	1.00	.49**
Teaching 4 Concept F: Learning	.19	.18	.15	.39	.49**	1.00

*p< .01. **p < .001.

significantly associated with Context Factors (r=.59, p <.001) and Teaching Conditions (r=.48, p <.001). Whereas teaching conditions were associated with learning (r=.49, p < .001) and with students (r=.48, p <.001).

Gender Differences In Writing Competence

Gender differences in writing and thinking competence among preservice teachers are shown in Table 5. For the

Table 5

Mean and Standard Deviation Scores for Writing and Thinking Competence by Gender

	Writing and Thinking Competence				
		Pre Test		Post Test	
	N	M	SD	M	SD
Writing Competence					
Total	86	2.7	.98	1.3	.52
Female	67	2.7	.98	1.3	.55
Male	19	2.4	.94	1.1	.34
Thinking Competence					
Total	86	1.2	.43	1.3	.51
Female	67	1.2	.42	1.3	.53
Male	19	1.1	.45	1.1	.44

pre-test females (M=2.7) and males (M=2.4) competence in writing gravitated toward Level 3, reflecting inadequate organization and some grammatical and mechanical errors. However, most students did demonstrate some forethought in the development of the idea or approach. The large SD scores for females (SD=.98) and for males (SD=.94) indicate a fairly large degree of diversity among each group such that some students demonstrated higher writing competence at

level 4 while some performed at level 1. The higher level of writing competence was in favor of the females.

Post test writing competence was lower than pre-test scores for both females (M=1.3) and males (M=1.1) indicating a trend toward weak organization and more grammatical errors. Higher intra-group variation favored females (SD=.55) than males (SD=.34). In comparison with the pre-test, females competence in writing was greater than males.

Gender Differences in Critical Thinking Competence. There was only slight differences between females (M=1.2) and males (M=1.1) pre-test critical thinking performance (Table 1). Both genders performed slightly above Bloom's (1966) first level of cognition, the recall level. Their critical thinking for teaching, as demonstrated in the pre-essay, indicated an identification of concepts and principles in teaching. However, there was slight evidence of critical thinking involving the interpretation, application, analysis, synthesis, and evaluation of these teaching concepts and principles.

Post test critical thinking competence in teaching for both female (M=1.3) and males (M=1.2) increased slightly from the pre-test performance. Most students understanding of the complexities in teaching remained at the recall level. More females (SD=.53) than males (SD=.44) began to develop thinking competence in teaching at the comprehension and application levels.

Illustration of Writing Samples

The following two writing samples illustrate how writing can be used to assess pre-service minority teachers writing and critical thinking competence for teaching.

Writing Sample A

My first Day of School

Today is my first day as a beginning teacher at Lake Middle School. I'm the special education teacher and I will be teaching sixth and seventh graders. Previously I've met with the principal and he inform me on the location of my classroom and the number of students I should expect to teach.

My students enter the classroom hurriedly and seems anxious to start of a new year. I'm nervous and I'm trying to remember what I was taught that I should do on the first day of school. I realize that I am not practing teaching and that this is the real thing. The final bell rings. I close the door and stare into the face of thirty-five students. I tell them that I will be their teacher and introduces myself to them. I then ask them to stand and tell me their names.

As a beginning teacher I realize

Sample A was rated using the holistic scoring scale of one to five. The student showed adequate organization and some forethought in the conception of the central idea.

Sample B illustrated that the student was able to

Writing Sample B

Teaching, one of the most under-
rated, underpaid professions known. Teachers
are the backbone of society. ~~Theyre~~ They
are pressed upon the problem child of society,
one in which the community is failing. By
becoming a teacher I hope to help this
problem; a problem in a field of very few.

If I were to teach a grade
it would probably be third. As a youngster
many students failed third grade. I also
feel that we must get through to our youth
at a young age. Third grade is a age
where students are ready to comprehend many
changes, problems, and make proper decisions.

Thirty-five students is a large
class. My teaching style would be one that
first pin-points the strong students. Then
by keeping an eye on them, individually
concentrate on the slower children. Eventually
this process will help those slower children
catch those who are smarter. Young children
need attention, if that attention is given
adequately, you can accomplish all you set out
to do. As a teacher its my duty to make
sure my kids are ready.

interpret specific concepts and principals discussed in the course and showed some signs of application.

Differences in preservice teachers' writing and teaching competence are illustrated in Table 6.

Table 6

Mean and Standard Deviation Scores for Writing and Teaching Competence by Time Periods

Time Periods		Focused Free Writing Competence			
		Writing		Thinking-Teaching	
	N* 144	M	SD	M	SD
Writing 1	36	1.8	.61	1.3	.28
Writing 3	36	2.2	.62	1.6	.48
Writing 6	36	2.2	.62	2.2	.62
Writing 9	36	2.1	.53	1.7	.61

*N = number of writing samples

Focused free writing competence

There were only minor variations among the sample's writing competence over the targeted time period. Time 1-Writing 1 (M=1.8, SD=.61) indicate the group's writing exhibited some consistent patterns of mechanical and grammatical errors which seriously impeded the reading of the writing. In addition, many students' writings lacked

evidence of forethought in the conception of the idea as well as examples, central idea, and development.

In contrast, Writings 3 and 6 (M=2.2, SD=6.2) show that many students' writings improved to reflect a greater degree of forethought, and fewer grammatical errors. Yet organization, examples, and style were still inadequate. The SD=.62 suggested that a small number of students had progressed to adequate organization, examples, grammar, and forethought. However, a greater number of students demonstrated only weak organization, no examples, serious grammatical errors, and minimal forethought.

By Time 4, Writing 9, (SD=.53) there existed less diversity in the sample's writing competence. The SD score of .53 suggests that the greater number of students' writing revealed a trend toward improvement. Yet, on a whole, the group's writing competence remained inadequate. Actually, there was a slight decrease in the students' performance during their Writing 9 (M=2.1) and Writing 6 (M=2.2). This decrease in performance might have been caused by a number of factors including fatigue toward the end of the semester and the fact that the students were not receiving grades for the writings.

Focused free thinking-teaching competence

Preservice teachers' thinking competence in teaching was dominated by what Perry (1970) terms as dualistic thinking. Scores for Writing 1 (M=1.3, SD=.28), Writing 2 (M=1.6, SD=.48) and Writing 9 (M=1.7, SD=.61) suggested that

the majority of these students understood few isolated factors in teaching or their significance to the total complexity of the context and process of teaching. Their competence for understanding teaching appeared to be supported by their personal preferences as opposed to the use of the professional knowledge base on teaching.

The small SD scores indicate a low level of differences among the students on Writings 1, 3, and 9 even though there was a progressive development in their teaching competence toward multiplicity, Perry's (1970) second stage of intellectual development.

Writing 6 (M=2.2, SD=.62) illustrated a movement from dualism to multiplicity by recognizing a number of different perspectives, principles, and concepts involved in the teaching process. However, the majority of these preservice students seemed to not recognize the relationships and generalizations among these concepts and principles. Most of the preservice students appeared to comprehend teaching from individual perspectives without a clear realization of the dynamics of the reciprocal nature of ideas, events, and persons involved in the totality of the teaching process. Moreover, most of the preservice teachers' writings lacked sustained examples and applications to real teaching within the school and community contexts.

The greater SD (.62) score exhibited with Writing 6 clearly suggests that a small percentage of the students had

progressed to Perry's third stage of intellectual development, contextual relativism. These students were beginning to conceptualize teaching from the vantage point of other persons involved in teaching. Moreover, their thinking was more reflectively based on the professional knowledge base of teaching.

As indicated in Table 7, both female and male students' writings revealed individual differences in writing and thinking competence. Female's writing competence scores - Writing 1 (M=1.9, SD=.64), Writing 3 (M=2.3, SD=.66), Writing 6 (M=2.3, SD=.65), and Writing 9 (M=2.2, SD= .55)- showed increased heterogeneity with an upward progression toward a greater degree of organization with a decreased in grammatical errors. In contrast, male students'

Table 7

Mean and Standard Deviation Scores for Writing Competence by Time Periods and Gender

	Focus Free Writing							
Time Periods	Writing Competence				Thinking Competence			
	Female n=30		Male n=11		Female n=30		Male n=11	
	M	SD	M	SD	M	SD	M	SD
Writing 1	1.9	.64	1.5	.41	1.4	.29	1.3	.40
Writing 3	2.3	.66	2.0	.47	1.6	.35	1.6	.40
Writing 6	2.3	.65	2.0	.49	2.2	.65	2.0	.49
Writing 9	2.2	.55	1.9	.44	1.7	.39	1.6	.42

writing competence scores - Writing 1 (M=1.5, SD=.41), Writing 3 (M=2.0, SD=.47), Writing 6 (M=2.0, SD=.49), Writing 9 (M=1.9, SD=.44)- indicated less diversity in individual differences with minimal progression toward some adequate organization.

In general, males had difficulty developing a forethought in the conception of an idea, illustrating only slight evidence of central thought and development with a pattern of serious grammatical and mechanical errors. Attention should be given to the decrease in Writing 9's scores from the scores earned in Writing 6. We have suggested that the decrease was caused by the end of semester fatigue and the knowledge that no grades were being given for the writings.

There were only minimal gender differences among the students thinking competence for teaching as shown in Table 7. Both the majority of female and males were unable to progress in their intellectual development for teaching beyond Perry's first level, termed dualism. Both males and females were limited in their understanding of the complex nature of the teaching process by their personal dispositions. Neither gender clearly advanced to Perry's next two stages of intellectual development.

Illustration of Sample Writings

In the following section, two sets of focus-free writings are presented. Each set respresents a selection of two students' writings. These students' writings will be

focused-free writings of which four samples from each student were used, representing writing at weeks 1, 3, 6, and 9 during the semester. Students were allowed ten minutes to write their responses to each focused-free writing assignment.

The first student's focused-free writings are illustrated in Writing Samples 1A, 2B, 3C, and 4D.

Writing Sample 1

Writing Sample 1A

As a a young child I would often imitate my elementary and Sunday school teacher. with the problems in our communities concerning the children. we need good teachers that care and have patience.

Writing Sample 1B

The student characteristics in this picture are they seem intrested in learning by taking part in the classroom activity by answering questions.

Writing Sample 1B (continued)

Here in this picture on page 163 all of the students do not appear to be interested in the class. Some appear to be day dreaming and others are focused on the class work.

Writing Sample 1C

To make all children winners I would get to know each parents first. Then I would let the children know that I am concerned and want them to learn.

I would also interact with the children because this is very important to the children and we should make them feel comfortable.

Some students also have a low self esteem and we should also make each student feel good about himself and then the learning process can began.

Writing Sample 1D

There are many factors that will prevent students from learning, such as the home environment, behavior problems and also if a teacher is not knowledgable about the subject being taught.

If a child home environment is poor usely he brings the problems to the class and his anger is taken out on the teacher or students. Also the teacher must have a good attitude towards her self and students.

There are some factors

The number of sentence does increase from Writing Samples 1A to 1D. Also, there is no significant improvement in the quality of the writing. Both samples 1A and 1B reveal either a weak or no organization and development. In contrast, samples 1C and 1D, this student is beginning to demonstrate slight evidence of a central theme. There is little development of the idea as well as inadequate organization.

The level of intellectual development relative to the complex process of teaching is low across all four

writing samples (1A,2B,3C,4D). Much of the thoughts expressed are based on this students' personal knowledge from a personal perspective. This students failed to express the issues in teaching from other perspectives that influence the situation. For example, in sample 2B, the role of the teacher, the learning process, group interaction, socialization process, classroom management, and other concepts are absent.

In sample 1D, there is a slight realization of this student's expanding intellectual knowledge about teaching. There is mention of a few education factors in teaching, indicating that the student's intellectual competence for teaching is beginning to move beyond the first level, which Perry termed dualism.

This student, at the end of the semester, is just beginning to reach Perry's second stage of intellectual development, multiplicity. Factors such as the home environment, the teacher's knowledge competence, teacher attitude toward self and students are mentioned in Writing Sample 1D. There is some evidence in Writing Sample 1D, paragraph two, that this student is beginning to understand the reciprocal effects of the interactions among these factors.

Writing Sample 2

The second sample of focused-free writings are illustrated in the following section (Writing Samples 2A, 2B, 2C, and 2D). These writing samples demonstrate the

developmental nature of writing. As revealed, this students' writing improved from the first writing to the

Writing Sample 2A

"Important Influences"

Some of my past teachers have influenced me to become a teacher. I have had teachers that were kind, supportive, and who really cared about me. When a student has a teacher like that, nine times out of ten, that student will succeed, not only for himself, but for his teacher also. There are children out there that want to learn. They spend all of their free time studying and reading. In today's society, that is the only thing they can do to get ahead and not be left along the way side.

Some communities are in dire need of good teachers. Especially those who are already going against the odds. In "bad" communities, one teacher can make a difference.

Writing Sample 2B

Small children don't need to have an environment around them that it so distracting that they can't pay attention in class. Whether it is the bulletin board, games, or even another child. Their environment should be comfortable to a certain extent.

Children on the elementary level are young, and almost anything is distracting to them because their attention span is so short. Activities should be planned in their best interest, because they are the ones who will benefit from it in the near future.

Writing Sample 2C

I think that everyone is good at something. Everyone isn't good at Math just as everyone isn't good at English. Students in the elementary school should be recognized for what they can do. Such as being creative, being cooperative, being attentive and present, or just being themselves.

Also, if a student is slow in a certain area, maybe the parents would consider getting them a tutor, or even helping them themselves to better understand the subject that they are failing in.

Writing Sample 2D

I think that taking notes for the purpose of later using them to study by is an important factor of learning. Asking questions, answering questions and other forms of participating, play a strong role in learning and gaining knowledge.

I think that some factors that prevent students from learning are as follows: The teacher spends more quality time with a "favorite student" than with the other kids.

fourth, from a score of level 1 to level 3. A score of 1 was assigned to Writing Sample 2A, indicating a gross lack of organization, examples, style and forethought in the writing. However, this student's writing does show improvement. Though inadequate writing, there is evidence of some degree of organization and conception of a central idea.

The thinking scores of the student progressed from 1 (Recall Level) on Writing 1B, to 2 (Interpretation Level) on Writings 2B, 2C, and 2D. These scores indicated that this student is beginning to comprehend the value of different factors in teaching. The application, analysis, synthesis, and evaluation of these factors are absent from this student' thinking, as revealed in the writing samples.

Level of intellectual development for effective teaching was rated level 1 (Dualism) for all four writing samples (2A,2B,2C, and 2D). In each sample, this student mentions some factors which may influence effective teaching. However, these factors are conceptualized from a personal perspective. Note in Sample 2A, "...my past teachers..." and in Sample 2C, "I think that everyone...". Moreover, the attributes of these factors are neither discussed nor are the roles of other individuals responsible for schooling recognized.

These focused-free writing illustrations indicate that considerable diversity in writing, critical thinking, and

intellectual competence in learning to teach exist among beginning preservice Afro-American teachers. Writing, as a diagnostic-prescriptive instructional methodology is one process for assessing, enhancing, and evaluating these important areas of competence required of preservice teachers. As was revealed in the focused-free writings, noticeable changes occurred in the writing, critical thinking, intellectual development for teaching of pre-service teachers during the semester. Cognitive structures of the pre-service teachers began the transition from a self-centered surface posture to one of more in-depth knowledge of subject matter and a view of the role others must play in the teaching and learning process.

Summary of the Study

Pre and Post Writing Competence. The evidence of this study did not favor a high relationship between pre and post writing competence. Although students wrote on the same topic pre writing competence did not predict post writing performance. This finding was not anticipated in view of the developmental nature of writing. Other intervening factors, such as level of motivation at the end of the semester, may have contributed to this finding. However, there were higher associations among the free writing. This finding suggested that preservice teachers' need to focus on single as opposed to multiple teaching factors.

Teaching and Writing Competence. The relationship between teaching competence and writing competence was low across all variables except for a few among free writing and single teaching concepts. This evidence suggested that writing and teaching competence are content specific. This observation, seems to hold validity for the relationships among teaching concepts which are closely related.

Gender Differences. The findings support the gender differences in writing competence. The results are in support of the interrelationship between language and critical thinking, since higher levels of writing competence for females was also associated with higher levels of critical thinking for teaching. It would seem that, at least when developing minority preservice competence in teaching, males may require somewhat different forms of instructional processes.

The fact that the majority of the students' critical thinking for teaching remained constant in the three education courses suggested a need for more critical analysis of initial field practicum in school settings. Even though these students had experienced twelve years of schooling, their understanding of the complex nature of teaching changed slightly at the conclusion of the course. This generalization seems to be, in terms of the findings, of greater relevance for minority male preservice teachers.

Focused Free Writing. Female preservice teachers'

focused free writing scores illustrated a progression toward greater writing during the semester. In contrast, male students demonstrated only minimal progress in writing competence. In terms of thinking competence, both females and male students made minimal progress. Neither group's intellectual development for teaching moved beyond Perry's first level, dualism. Their understanding of aspects of teaching was limited to their personal dispositions.

Concepts in Teaching and Teaching Competence. Several concepts in teaching were significantly related to level of teaching competence. Attributes of the concept of students were associated with teaching conditions and broad context factors. In comparison, the concept of teaching conditions was positively associated with students.

Implications of the Study

The major implication of this study is that the curriculum for Afro-American preservice teachers should involve a low degree of ambiguity about the professional knowledge base. This suggests that instructional practices would afford students many concrete opportunities to conceptualize many attributes of the abstract factors involved with effective teaching. In view of the developmental nature of intellectual competence in learning to teach effectively, preservice teachers may be better prepared for teaching by using a synthesis of developmental and critical reflective model of teacher education.

Recommendations

The idea that Free Writings and Focused Free Writings help to formalize and focus the cognitive structures of students seems to be well supported in this research. Therefore the following recommendations may be considered with regards to Free and Focused Free Writings:

1. Writing may be used as an effective instructional procedure to help the Afro-American preservice teachers gain a greater understanding of the complex diversity in teaching.
2. Writing may be used as a procedure for better understanding cultural diversity and human relationships involved in the context and process of teaching.
3. Students' writing samples may be used to assess degrees of modification in their personal dispositions with regard to teaching.
4. Gender differences in Afro-American preservice teachers' writing competence suggest a need for the application of diagnostic-prescriptive teaching methodology.
5. Students' limited intellectual understanding of specific concepts in teaching suggests the need to more interactive field-based experiences in introductory education courses.
6. Traditional teaching methodology (e.g. textbook driven) seems inadequate for enabling Afro-American preservice teachers to maximize their critical

thinking competence for learning to teach.

7. Limitations of students' writing competence appeared to be tied to level of teaching complexity. These limitations suggests the need to provide students with formal content specific writing in the introduction to education courses.

Conclusion

This study was in support of the research on the relationship between writing and reflective-decision making cognitive processes. In this study both writing competence and critical thinking in teaching were related, whereas one appeared to dependent upon the other. However, the two major assumptions of the study were not supported by the results. First, an increase solely in writing activities did not significantly increase Afro-American preservice teachers' reflective-decision making cognitive processes for effective teaching. Moreover, increased opportunities to write about concepts in teaching did not significantly improve their competence in writing. Second, increased writing assignments on teaching concepts did not significantly affect perservice teachers' intellectual competence for learning to teach.

Although the focused free writing versus structured writing assignments revealed slightly higher level critical

competence, most students retained their personal values and dispositions about teaching.

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